

**WEST**

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L4: Entry 15 of 18

File: USPT

Apr 20, 1999

DOCUMENT-IDENTIFIER: US 5895658 A

TITLE: Topical delivery of L-arginine to cause tissue warming

Brief Summary Text (5):

Approaches to improving local blood flow have been many and consist of both systemic and topical approaches. Many beneficial effects could be obtained should improvement in local blood flow be achieved since impairment of local blood flow causes a variety of negative consequences. Among these are cold hands and feet, baldness, leg ulcers, certain forms of impotence, as well as a variety of other things. There have been several attempts to warm cold tissue including cold hands, fingers, feet and toes. Many persons suffer from cold hands, feet or other body parts. This is often caused by insufficient blood flow in the cold tissue. Previously cold hands or feet have been treated by wearing warm socks or gloves, sometimes even socks or gloves which are mechanically heated. The use of hot packs and glove or shoe inserts which generate heat through chemical reactions has also been a potential solution. These approaches have obvious disadvantages, for example, in maintaining finger dexterity. Certain liniments containing, such as capsicum have been suggested. More recently, topical creams containing nitroglycerine have been used. See H. Natsuda et al., Ryumachi 34, 849 (1994). While these medicaments have enjoyed some level of success, the effects are often extremely transient in nature. Nitroglycerine creams also have the significant disadvantage that nitroglycerine is a cardioactive drug, raising concerns of effects on the heart.

Brief Summary Text (6):

The fundamental basis for cold tissue of the hands, fingers, feet and toes as well as other cold tissue is insufficient blood flow to the tissue. It has been suggested by some that the use of increased blood flow through relaxation of blood vessels, particularly small and very small vessels may be of use in warming cold tissue. However reasonable this suggestion, many attempts to demonstrate warming by use of agents which produce vasodilation and therefore increased blood flow have produced negative results. See N Dietz et al., J Appl Physiol 76, 2047 (1994); S Whitmore et al., J Rheumatol 22, 50 (1995); S Singh et al., Eur J Clin Invest 25, 182 (1995). The only report of modest temporary success involved the use of nitroglycerine. See H Natsuda et al., Ryumachi 34, 849 (1994). The oral administration of the nitric oxide precursors, such as L-arginine, to produce warming secondary to vasodilation has been suggested. And a variety of indirect and non-definitive experiments have been conducted. See M. Sonntag et al., Pflugers Arch 420, 194 (1992); A. Agostoi et al., Int J Clin Lab Res 21, 202 (1991). Thus, while the literature contains suggestions that vasodilation by administration of oral L-arginine, the precursor of nitric oxide (endothelium-dependent relaxing factor), no reports exist of success in producing an actual warming of tissue using this agent. In fact Dietz (see N Dietz et al., J Appl Physiol 76, 2047 (1994)) concludes from his data that "These data suggest that NO (nitric oxide) does not play a major role in cutaneous vasodilation during body heating in humans." Further Singh (see S Singh et al., Eur J of Clin Invest 25, 182 (1995)) in a study of patients with Raynaud's phenomenon (severely cold hands and/or feet) concludes that L-arginine, administered orally, failed to cause vasodilation (and therefore warming) in patients with Raynaud's phenomenon.

Brief Summary Text (9):

It was discovered that topical application of a nitric oxide precursor, L-arginine, in its various forms contained in a variety of topical preparations, either by themselves or with other agents to aid in penetration, such as a high ionic strength

environment, neutralization of its charge in a complex or by other means, or included in a liposome or other biological carrier, or with an added penetrating agent when administered to cold or cool tissue causes a substantial and prolonged warming effect in the tissue.

Detailed Description Text (2):

The preferred embodiment consists of a base cream with the properties of excellent absorption into the skin which also contains L-arginine hydrochloride (12.5% w/v), choline chloride (10% w/v), magnesium chloride (5% w/v) and sodium chloride (5% w/v). The components of the base cream may be those commonly found in hand creams, such as water, mineral oil, glyceryl stearate, squalene, propylene glycol stearate, wheat germ oil, glyceryl stearate, isopropyl myristate, steryl stearate, polysorbate 60, propylene glycol, oleic acid, tocopherol acetate, collagen, sorbitan stearate, vitamin A & D, triethanolamine, methylparaben, aloe vera extract, imidazolidinyl urea, propylparaben, and BHA. L-arginine hydrochloride is a precursor to the molecule, nitric oxide, NO, being transformed into NO and citruline by the enzyme nitric oxide synthetase. Nitric oxide is the substance that relaxes the blood vessels, allowing for increased blood flow. Choline chloride, magnesium chloride and sodium chloride provides a high ionic strength environment for the highly charged molecule, L-arginine. This high ionic strength environment is an example of a hostile biophysical environment for L-arginine. That is, the highly charged ionic strength is an unfavorable environment for the highly charged L-arginine making the L-arginine anxious to move to a more hospitable, less charged environment such as human tissue. The base cream containing L-arginine, choline chloride, magnesium chloride and sodium chloride is the agent which is applied to the hands and/or feet to produce to produce a warming effect in the tissue.

Detailed Description Text (6):

While L-arginine hydrochloride is the preferred active agent because it is the agent in nature itself, it is non-toxic, is highly soluble and it is inexpensive, other agents could be used which are also precursors or donors of nitric oxide. These include D,L-arginine, L-arginine, alkyl (ethyl, methyl, propyl, isopropyl, butyl, isobutyl, t-butyl) esters of L-arginine and salts thereof. Pharmaceutically acceptable salts include hydrochloride, glutamate, butyrate, and glycolate.

Detailed Description Text (9):

A variety of means for effecting or improving absorption of the active agent can be envisioned. One principle behind the absorption of a highly charged molecule such as L-arginine into tissue is to either create a biophysically hostile environment in the delivery vehicle such that L-arginine would prefer to be in tissue, or to package L-arginine in such a way that it is carried into tissue or neutralize its charge by derivitization or forming a neutral salt. Examples of biophysically hostile environments, include but are not limited to; high ionic strength by the addition of ionic salts such as sodium chloride, magnesium chloride or choline chloride; high or low pH by adding pharmaceutically acceptable acids or bases; and highly hydrophobic environments by decreasing water content and increasing lipid, oil and/or wax content. Examples of packaging which would be carried into tissue includes liposomes or emulsions of collagen, collagen peptides or other components of skin or basement membrane. Examples of neutralization of charge include delivery of the active agent in the form or an ester or salt such as arginine glutamate which is electronically neutral. In each case of creating a hostile biophysical environment for the active agent, the agent was added to an appropriate preparation. In the case of creating a high ionic strength ions such as but not limited to sodium chloride, potassium chloride, choline chloride, magnesium chloride, lithium chloride, alone or in combination were added in high concentration. Other highly charged molecules such as polylysine, polyglutamine, polyaspartate or copolymers of such charged amino acids may be used to create the hostile biophysical environment. Alternatively a hostile biophysical environment may be created by placing the highly charged L-arginine in an hydrophobic, oily environment such as in an oil-based cream containing little or no water. Absorption may further be aided by combining the use of hostile biophysical environments with the use of penetrating agents such as oleoresin capsicum or molecules containing heterocyclic rings to which are attached hydrocarbon chains.

CLAIMS:

1. A method of warming tissue comprising delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives, to skin comprising the step of topically applying to the skin a vehicle containing an effective amount of the substance, and a concentration of ionic salt sufficient to create an ionic environment which causes the substance to migrate from the vehicle to the skin where the substance is absorbed.
4. The method of claim 1 wherein a vehicle containing the substance and the ionic salt within a liposome, and the is applied to the skin.
5. The method of claim 1 wherein a vehicle containing the substance and the ionic salt within a liposome and an ionic salt concentration sufficient to create an ionic strength environment within the liposome is applied to the skin so that the liposomes migrate from the vehicle to the skin.

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 18 of 18 returned.**☐ 1. Document ID: US 6492332 B1

L4: Entry 1 of 18

File: USPT

Dec 10, 2002

US-PAT-NO: 6492332

DOCUMENT-IDENTIFIER: US 6492332 B1

TITLE: Irrigation solution and methods for inhibition of tumor cell adhesion, pain and inflammation

DATE-ISSUED: December 10, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Demopulos; Gregory A.	Mercer Island	WA		
Pierce-Palmer; Pamela	San Francisco	CA		
Herz; Jeffrey M.	Mill Creek	WA		
Tanelian; Darrell L.	Dallas	TX		

US-CL-CURRENT: 514/12; 514/217, 514/226.2, 514/25, 514/254.06, 514/280, 514/288, 514/317, 514/327, 514/353, 514/356, 514/397, 514/413, 514/415, 514/509, 514/619, 514/654, 514/680

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw Desc	Image										

☐ 2. Document ID: US 6489308 B1

L4: Entry 2 of 18

File: USPT

Dec 3, 2002

US-PAT-NO: 6489308

DOCUMENT-IDENTIFIER: US 6489308 B1

TITLE: Inhibitors of serine protease activity, methods and compositions for treatment of nitric-oxide-induced clinical conditions

DATE-ISSUED: December 3, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shapiro; Leland	Denver	CO		

US-CL-CURRENT: 514/45; 514/423, 514/454, 514/613

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw Desc	Image										

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☐ 3. Document ID: US 6486206 B1

L4: Entry 3 of 18

File: USPT

Nov 26, 2002

US-PAT-NO: 6486206

DOCUMENT-IDENTIFIER: US 6486206 B1

TITLE: Mechanical and pharmacologic therapies to treat cardiac arrest

DATE-ISSUED: November 26, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lurie; Keith G.	Minneapolis	MN		

US-CL-CURRENT: 514/561; 514/653

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw. Desc	Image										

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☐ 4. Document ID: US 6458841 B2

L4: Entry 4 of 18

File: USPT

Oct 1, 2002

US-PAT-NO: 6458841

DOCUMENT-IDENTIFIER: US 6458841 B2

TITLE: Topical and oral delivery of arginine to cause beneficial effects

DATE-ISSUED: October 1, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	South Hero	VT		

US-CL-CURRENT: 514/565; 424/401, 424/439, 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw. Desc	Image										

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☐ 5. Document ID: US 6425881 B1

L4: Entry 5 of 18

File: USPT

Jul 30, 2002

US-PAT-NO: 6425881

DOCUMENT-IDENTIFIER: US 6425881 B1

TITLE: Therapeutic mixture useful in inhibiting lesion formation after vascular injury

DATE-ISSUED: July 30, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaesemeyer; Wayne H.	Augusta	GA		

US-CL-CURRENT: 604/93.01; 514/269, 514/53, 514/94

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 6. Document ID: US 6376471 B1

L4: Entry 6 of 18

File: USPT

Apr 23, 2002

US-PAT-NO: 6376471

DOCUMENT-IDENTIFIER: US 6376471 B1

TITLE: Gene delivery compositions and methods

DATE-ISSUED: April 23, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lawrence, III; John H.	Reisterstown	MD		
Donahue; J. Kevin	Baltimore	MD		

US-CL-CURRENT: 514/44; 424/93.2, 435/320.1, 435/455

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 7. Document ID: US 6333350 B1

L4: Entry 7 of 18

File: USPT

Dec 25, 2001

US-PAT-NO: 6333350

DOCUMENT-IDENTIFIER: US 6333350 B1

TITLE: Use of nitric oxide donors and/or substrates or nitric oxide inhibitors for regulating cervical dilatation and extensibility

DATE-ISSUED: December 25, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chwalisz; Kristof	Berlin			DE
Garfield; Robert E.	Friendswood	TX		

US-CL-CURRENT: 514/509; 514/565, 514/727

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
Draw Desc	Image									

☐ 8. Document ID: US 6287285 B1

L4: Entry 8 of 18

File: USPT

Sep 11, 2001

US-PAT-NO: 6287285

DOCUMENT-IDENTIFIER: US 6287285 B1

TITLE: Therapeutic, diagnostic, or hydrophilic coating for an intracorporeal medical device

DATE-ISSUED: September 11, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michal; Eugene T.	San Francisco	CA		
Buchko; Christopher J.	San Francisco	CA		
Bigus; Stephen J.	San Jose	CA		

US-CL-CURRENT: 604/264; 424/422, 424/423, 604/265

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 9. Document ID: US 6271211 B1

L4: Entry 9 of 18

File: USPT

Aug 7, 2001

US-PAT-NO: 6271211

DOCUMENT-IDENTIFIER: US 6271211 B1

TITLE: Gene therapy for regulating penile smooth muscle tone

DATE-ISSUED: August 7, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Christ; George J.	Smithtown	NY		
Melman; Arnold	Ardsley	NY		

US-CL-CURRENT: 514/44; 435/320.1, 435/325, 435/455, 530/350, 536/23.1, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 10. Document ID: US 6239117 B1

L4: Entry 10 of 18

File: USPT

May 29, 2001

US-PAT-NO: 6239117

DOCUMENT-IDENTIFIER: US 6239117 B1

TITLE: Gene therapy for regulating bladder smooth muscle tone

DATE-ISSUED: May 29, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Christ; George J.	Smithtown	NY		
Melman; Arnold	Ardsley	NY		

US-CL-CURRENT: 514/44; 435/320.1, 435/325, 435/455, 530/350, 536/23.1, 536/23.5,  
800/8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
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☐ 11. Document ID: US 6235500 B1

L4: Entry 11 of 18

File: USPT

May 22, 2001

US-PAT-NO: 6235500

DOCUMENT-IDENTIFIER: US 6235500 B1

TITLE: Oxygen-binding heme proteins incorporating circularly-permuted globins

DATE-ISSUED: May 22, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sligar; Stephen G.	Urbana	IL		
Sanders; Kevin	Champaign	IL		

US-CL-CURRENT: 435/69.6; 435/252.3, 435/320.1, 435/325, 530/385, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
Draw Desc	Image									

☐ 12. Document ID: US 6207713 B1

L4: Entry 12 of 18

File: USPT

Mar 27, 2001

US-PAT-NO: 6207713

DOCUMENT-IDENTIFIER: US 6207713 B1

TITLE: Topical and oral delivery of arginine to cause beneficial effects

DATE-ISSUED: March 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 514/565; 424/401, 424/439, 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
Draw Desc	Image									

☐ 13. Document ID: US 6150338 A

L4: Entry 13 of 18

File: USPT

Nov 21, 2000

US-PAT-NO: 6150338

DOCUMENT-IDENTIFIER: US 6150338 A

TITLE: Gene therapy for alleviating erectile dysfunction

DATE-ISSUED: November 21, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Geliebter; Jan	Brooklyn	NY		
Melman; Arnold	Ardsley	NY		
Christ; George J.	Smithtown	NY		
Rehman; Jamil	Bronx	NY		

US-CL-CURRENT: 514/44; 435/325, 435/366, 536/23.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 14. Document ID: US 5910482 A

L4: Entry 14 of 18

File: USPT

Jun 8, 1999

US-PAT-NO: 5910482

DOCUMENT-IDENTIFIER: US 5910482 A

TITLE: Treatment or prevention of preeclampsia, eclampsia with calcitonin gene related peptide, CGRP analog, progestational agent, nitric oxide source, and cyclooxygenase inhibitor

DATE-ISSUED: June 8, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yallampalli; Chandrasekhar	Houston	TX		
Wimalawansa; Sunil J.	Friendswood	TX		

US-CL-CURRENT: 514/12; 530/307

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 15. Document ID: US 5895658 A

L4: Entry 15 of 18

File: USPT

Apr 20, 1999

US-PAT-NO: 5895658

DOCUMENT-IDENTIFIER: US 5895658 A

TITLE: Topical delivery of L-arginine to cause tissue warming

DATE-ISSUED: April 20, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel; Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 424/401; 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 16. Document ID: US 5814666 A

L4: Entry 16 of 18

File: USPT

Sep 29, 1998

US-PAT-NO: 5814666

DOCUMENT-IDENTIFIER: US 5814666 A

TITLE: Encapsulated and non-encapsulated nitric oxide generators used as antimicrobial agents

DATE-ISSUED: September 29, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Green; Shawn J.	Vienna	VA		
Keefer; Larry K.	Bethesda	MD		

US-CL-CURRENT: 514/611; 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 17. Document ID: US 5750132 A

L4: Entry 17 of 18

File: USPT

May 12, 1998

US-PAT-NO: 5750132

DOCUMENT-IDENTIFIER: US 5750132 A

TITLE: Treatment of adverse effects associated with administration of extracellular hemoglobin

DATE-ISSUED: May 12, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gerber; Michael J.	Denver	CO		

US-CL-CURRENT: 424/423; 424/434, 424/435, 424/449, 424/45, 424/451, 424/464, 514/185, 514/815, 540/145

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KVMC

☐ 18. Document ID: US 5364884 A

L4: Entry 18 of 18

File: USPT

Nov 15, 1994

US-PAT-NO: 5364884

DOCUMENT-IDENTIFIER: US 5364884 A

TITLE: Arginine compounds as ocular hypotensive agents

DATE-ISSUED: November 15, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Varma; Rajender S.	The Woodlands	TX		
Chiou; George C. Y.	College Station	TX		

US-CL-CURRENT: 514/551; 514/565, 514/616, 514/621, 514/913, 560/34

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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L2 and liposome\$	18

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L5: Entry 3 of 7

File: USPT

Dec 12, 2000

DOCUMENT-IDENTIFIER: US 6159942 A

TITLE: Compositions for increasing energy in vivo

Detailed Description Text (5):

2. "Vasodilator" includes any substance that causes dilation of blood vessels, including adenine, hydralazine, arginine and nitroglycerine administered transdermally or orally.

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 7 of 7 returned.**☐ 1. Document ID: US 6425881 B1

L5: Entry 1 of 7

File: USPT

Jul 30, 2002

US-PAT-NO: 6425881

DOCUMENT-IDENTIFIER: US 6425881 B1

TITLE: Therapeutic mixture useful in inhibiting lesion formation after vascular injury

DATE-ISSUED: July 30, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaesemeyer; Wayne H.	Augusta	GA		

US-CL-CURRENT: 604/93.01; 514/269, 514/53, 514/94

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

[KVMC](#)☐ 2. Document ID: US 6218366 B1

L5: Entry 2 of 7

File: USPT

Apr 17, 2001

US-PAT-NO: 6218366

DOCUMENT-IDENTIFIER: US 6218366 B1

TITLE: Method for raising the hypoxic threshold

DATE-ISSUED: April 17, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
St. Cyr; John	Coon Rapids	MN		
Johnson; Clarence A.	Wyoming	MN		
MacCarter; Dean J.	Englewood	CO		
Sawada; Stephen G.	Indianapolis	IN		

US-CL-CURRENT: 514/23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KVMC](#)

☐ 3. Document ID: US 6159942 A

L5: Entry 3 of 7

File: USPT

Dec 12, 2000

US-PAT-NO: 6159942

DOCUMENT-IDENTIFIER: US 6159942 A

TITLE: Compositions for increasing energy in vivo

DATE-ISSUED: December 12, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
St. Cyr; John	Coon Rapids	MN		
Johnson; Clarence A.	Wyoming	MN		

US-CL-CURRENT: 514/23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 4. Document ID: US 5962413 A

L5: Entry 4 of 7

File: USPT

Oct 5, 1999

US-PAT-NO: 5962413

DOCUMENT-IDENTIFIER: US 5962413 A

TITLE: Treatment of uterine contractility disorders with a nitric oxide synthase substrate and/or donor, or a nitric oxide inhibitor

DATE-ISSUED: October 5, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garfield; Robert E.	Friendswood	TX		
Chwalisz; Krzysztof	Berlin			DE
Bukowski; Radoslaw	Berlin			DE
Yallampalli; Chandra	Houston	TX		

US-CL-CURRENT: 514/12; 424/608, 514/171, 514/21, 514/412, 514/434, 514/470, 514/509, 514/561, 514/563, 514/565, 514/608, 514/624, 514/632, 514/648, 514/651, 514/652, 514/742, 514/814, 514/843, 514/866, 514/903

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 5. Document ID: US 5948762 A

L5: Entry 5 of 7

File: USPT

Sep 7, 1999

US-PAT-NO: 5948762

DOCUMENT-IDENTIFIER: US 5948762 A

TITLE: Treatment of uterine contractility disorders with a nitric oxide synthase substrate and/or donor or a nitric oxide inhibitor

DATE-ISSUED: September 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garfield; Robert E.	Friendswood	TX		
Chwalisz; Krzysztof	Berlin			DE
Bukowski; Radoslaw	Berlin			DE
Yallampalli; Chandra	Houston	TX		

US-CL-CURRENT: 514/12, 514/171, 514/21, 514/412, 514/470, 514/561, 514/563, 514/565, 514/648, 514/651, 514/652, 514/742, 514/841, 514/843

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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☐ 6. Document ID: US 5767160 A

L5: Entry 6 of 7

File: USPT

Jun 16, 1998

US-PAT-NO: 5767160

DOCUMENT-IDENTIFIER: US 5767160 A

TITLE: Method and formulation of stimulating nitric oxide synthesis

DATE-ISSUED: June 16, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaesemeyer; W. H.	Augusta	GA		

US-CL-CURRENT: 514/565

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 7. Document ID: US 5543430 A

L5: Entry 7 of 7

File: USPT

Aug 6, 1996

US-PAT-NO: 5543430

DOCUMENT-IDENTIFIER: US 5543430 A

TITLE: Method and formulation of stimulating nitric oxide synthesis

DATE-ISSUED: August 6, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kaesemeyer; W. H.	August	GA	30904	

US-CL-CURRENT: 514/565

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
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Terms	Documents
(arginine)adj3 nitroglycerine	7

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## WEST Search History

DATE: Wednesday, January 15, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L5	(arginine)adj3 nitroglycerine	7	L5
L4	L2 and liposome\$	18	L4
L3	L2 and (hemorrhoid\$ or fissures)	0	L3
L2	L1 and nitroglycerine	62	L2
L1	(nitric adj1 oxide) same (arginine)	841	L1

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 5 of 5 returned.**☐ 1. Document ID: US 5980937 A

L6: Entry 1 of 5

File: USPT

Nov 9, 1999

US-PAT-NO: 5980937

DOCUMENT-IDENTIFIER: US 5980937 A

TITLE: Liposomes with enhanced entrapment capacity and their use in imaging

DATE-ISSUED: November 9, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tournier; Herve	Valleiry			FR
Schneider; Michel	Troinex			CH
Guillot; Christian	Le Chable-Beaumont			FR

US-CL-CURRENT: 424/450; 264/4.1, 264/4.3, 264/4.6, 428/402.2

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMIC</a>
<a href="#">Draw. Desc</a>	<a href="#">Image</a>									

☐ 2. Document ID: US 5895661 A

L6: Entry 2 of 5

File: USPT

Apr 20, 1999

US-PAT-NO: 5895661

DOCUMENT-IDENTIFIER: US 5895661 A

TITLE: Liposome vesicle precursors

DATE-ISSUED: April 20, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tournier; Herve	Valleiry			FR
Schneider; Michel	Troinex			FR
Guillot; Christian	Le Chable-Beaumont			FR

US-CL-CURRENT: 424/450; 264/4.1, 264/4.3, 264/4.6, 428/402.2, 514/945

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KMIC</a>
<a href="#">Draw. Desc</a>	<a href="#">Image</a>									

☐ 3. Document ID: US 5702722 A

L6: Entry 3 of 5

File: USPT

Dec 30, 1997

US-PAT-NO: 5702722

DOCUMENT-IDENTIFIER: US 5702722 A

TITLE: Liposomes with enhanced entrapment capacity, method and use

DATE-ISSUED: December 30, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tournier; Herve	Valleiry			FR
Schneider; Michel	Troinex			CH
Guillot; Christian	Le Chable-Beaumont			FR

US-CL-CURRENT: 424/450; 264/4.1, 264/4.3, 264/4.6, 428/402.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 4. Document ID: US 5569464 A

L6: Entry 4 of 5

File: USPT

Oct 29, 1996

US-PAT-NO: 5569464

DOCUMENT-IDENTIFIER: US 5569464 A

TITLE: Stable aqueous dispersions containing liposomes

DATE-ISSUED: October 29, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Endo; Kenji	Fujisawa			JP
Suzuki; Hidekazu	Kanagawa-ken			JP
Oguma; Touru	Hadano			JP
Goto; Masayoshi	Tokyo			JP

US-CL-CURRENT: 424/450; 428/402.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 5. Document ID: US 4937078 A

L6: Entry 5 of 5

File: USPT

Jun 26, 1990

US-PAT-NO: 4937078

DOCUMENT-IDENTIFIER: US 4937078 A

TITLE: Liposomal local anesthetic and analgesic products

DATE-ISSUED: June 26, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mezei; Michael	Halifax			CA
Gesztes; Adrienn	Budapest			HU

US-CL-CURRENT: 424/450; 514/817, 514/818

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMCMC
Draw Desc	Image									

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Terms	Documents
lidocaine adj5 liposome\$	5

**Display Format:**  [Change Format](#)[Previous Page](#)[Next Page](#)

## WEST Search History

DATE: Wednesday, January 15, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
L6	lidocaine adj5 liposome\$	5	L6
L5	(arginine)adj3 nitroglycerine	7	L5
L4	L2 and liposome\$	18	L4
L3	L2 and (hemorrhoid\$ or fissures)	0	L3
L2	L1 and nitroglycerine	62	L2
L1	(nitric adj1 oxide) same (arginine)	841	L1

END OF SEARCH HISTORY